

HUDEG, R.

"Laboratory methods of determining the preignition values of spark plugs."

Automobil. Praha, Czechoslovakia. Vol. 3, no. 3, Mar. 1959.

Monthly list of East European Accessions (EEAI), IC, Vol. 8, No. 6, Jun 59, Uncles

GAPKOVA, H.; HUDEC, S.; VOLF, M.B.

Contribution of the Association of Technical Glass Enterprises  
to international standardization. Sklar a keramik 13 no.8:  
220 Ag '63.

1. Vyvojovy ustav technickeho skla, Praha; Sdruzeni podniku  
technickeho skla, Sasava.

HUDEC, V.

"For Successful Regional Glider Competitions", P. 316 , (KRIDLA VLASTI,  
Vol. 4, No. 14, July 1954, Praha, Czechoslovakia)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4,  
No. 1, Jan. 1955, Uncl.

HJDEC, V.

V. I. Lenin Works in Plzen, p. 151, STROJIRENSKA VYROBA (Ministerstvo  
strojirenstvi) Praha, Vol. 3, No. 4, Apr. 1955

SOURCE: East European Accessions List (EEAL) Library of Congress,  
Vol. 4, No. 12, December 1954

HUDEC, V., and others.

Heat processing of broaches and extrusion mandrels. p. 473. (STROJIRENSKA  
VYROBA, Vol. 4, No. 11, Nov 1956, Praha, Czechoslovakia)

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, No. 12, Dec 1957. Uncl.

HUDEG, V.

Hudec, V.

Report on malaco zoological research in the Spranek reservation in the environs of Javorieko in the karst near Litovel and Konice. p. 10.

Vol. 10, no.1, Feb. 1955  
OCHRANA PRIRODY

SO: Monthly List of East European Accession, (EEAL), LC, Vol. 4, No. 9,  
Sept. 1955, Uncl.

HUDEC, V.

Report on malacozoological research in national  
wildlife reservations and in some localities in  
the White Carpathians. p. 225.  
OCHRANA PRIRODY. (Ministerstvo kultury, Statistika  
ochrany prírody) Praha.  
Vol. 10, no. 8, Nov. 1955.

SOURCES: EEAL LC Vol. 5, No. 10, Oct. 1956

HNDEC, V.

Mollusks on the "Bukova Hora" natural reservation near Pribram, in the Central Bohemian Mountains. p. 186 (Ochrana Prirody Vol. 11, no. 6, July 1956 Praha)

SO: Monthly List of East European Accession (EEAL) LC, Vol. 6, no. 7, July 1957. Uncl.



HUDEC, V.

HUDEC, V. Mollusks in the Pisečný rybník Reserve near Milotice. p. 308.

Vol. 11, no. 10, Dec. 1956

OCHRANA PŘÍRODY

AGRICULTURE

Czechoslovakia

So: East European Accession, Vol. 6, No. 5, May 1957

HUDEC, V.

Critical notes on indications concerning the malacofauna in Moravia. p. 369.  
(PRACE, Vol. 29, No. 7, 1957, Brno, Czechoslovakia)

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, No. 12, Dec 1957. Uncl.

HUDEC, V.

Preliminary report on malacological exploration of the Krivan area of the Lesser Fatra. p. 56. (CASOPIS; ODDIL PRIRODOVEDNY, Vol. 126, No. 1, 1957, Praha, Czechoslovakia)

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, No. 12, Dec 1957. Uncl.

HUDEC, Vladimír

Observations on the snail *Spelaeodiscus tatricus* (Haz.), a rare inhabitant of the Tatra Mountains. *Biologia* 16 no.3:210-216 '61.  
(KEAI 10:9/10)

1. Zastupce vedoucího redaktora Učitelských novin, Praha.

(SNAILS)

HUDEC, Vladimir

Occurrence of the slug *Orcula dolium* in the Litovel-Konice karst.  
Prid cas ruský 23 no.3:366-368 '62.

CZECHOSLOVAKIA

Vladimir HUDEC [Affiliation not given.]

"Differentiating Characteristics of Sexual Organs of Snail  
*Perforatella dibothrion* (Kim.) and a Few Related Species."

Bratislava, Biologia, Vol 18, No 5, 1963; pp 348-360.

Abstract [German summary modified]: Thorough anatomical studies and detailed taxonomical discussion. Many erroneous conclusions are alleged to have been made by early observers of these snails. Six diagrams of sexual organs and six 3-side photographs of shells; 12 references: 6 Western, 2 Hungarian, Polish, Czech, Rumanian, Soviet.

1/1

L 11377-65 Pa-4 AFIC(b)/AMD

ACCESSION NR: AP4049750

Z/0049/64/000/007/0522/0340

AUTHOR: Hudec, V. (Gudets, V.); Brabenec, J. (Brabanets, Ya.) (6)

TITLE: Occurrence of snail *Candidula Scosiana* (J. Wagner) in Czechoslovakia.  
(Contribution to the theory of origin and development of species)

SOURCE: <sup>V. 19</sup> Biologia, no. 7, 1964, 522-540

TOPIC TAGS: zoology, conchology, anatomy, snail, ecology, bionomics

Abstract: The determination of the species *Candidula scosiana* and *C. unifasciata* according to conchology is described. Differences in their anatomy are reviewed. As neither of the species is found in Czechoslovakia in the fossilized form, it is concluded, that the snails entered the region only in the most recent geological period. Both species have recently been found to be expanding in the Easterly direction. The places where the *C. scosiana* is most likely to be found are described. The snail buries itself underground only in the periods of steady freezing temperatures. 8 Figures.

Card 1/2

L 11397-65  
ACCESSION NR: AP4049750

ASSOCIATION: none

SUBMITTED: 17Dec63

ENCL: 00

SUB CODE: LS

NO REF SOV: 000

OTHER: 023

JPRS

Card 2/2



I 54/45-65

ACCESSION NR: AP5015834

CZ/0017/64/053/012/0650/0655

AUTHOR: Hudecek, Frantisek (Engineer); First, Antonin (Engineer)

TITLE: Summation metering of large DC currents

SOURCE: Elektrotechnicky obzor, v. 53, no. 12, 1964, 650-655

TOPIC TAGS: direct current, electric quantity instrument, electric engineering

Abstract (Author's English summary, modified): Problems encountered in the summation metering of DC currents are explained and recommendations are made which must be taken into consideration in the designing and construction of summators. The article describes a practical design of a summator with a summing transducer to meter DC currents up to 200 ka. At the CKD plant, a summing transducer has been designed which measures currents in a current range of  $(0.5 - 1) I$ , with a relative error of less than  $\pm 0.1\%$ . Certain methods of suppressing parasitic voltage induced from the working winding into the control winding of the summing transducer also are described.

Orig. art. has 6 figures and 18 formulas.

Card 1/2

L 54045-65  
ACCESSION NR: AP5016834

ASSOCIATION: CKD, Zavod Elektrotechnika, n. p., Prague (CKD Electrical Engineering Plant, n. p.)

SUBMITTED: 00

ENCL: 00

SUB CODE: EE

NO REF SOV: 000

OTHER: 003

JPRS

Card 2/2

HUDECEK, Karel, inz.dr.

Printing colors. Papir a celulosa 18 no.11:221-225 N'63.

1. Vyzkumny ustav polygraficky, Praha.

HUDECEK, Ladislav

Socialist competition in river navigation, a method for fulfillment and exceeding of plans. Doprava no.9:310 '62.

RICHTER, Karel, inz.; HUDECEK, Milan, inz.

Optimum cruising altitude of transport aircraft with turboprop engines. Zpravodaj VZLU 4:9-20 '62.

L 16588-63

EPA/EWT(m)/BDS

AEDC/AFFTC/ASD/APGC

Paa-4

60

Z/059/62/000/004/002/007

AUTHORS: Richter, Karel, Engineer; Hudeček, Milan, Engineer

TITLE: Optimum cruising altitudes of transport aeroplanes with turboprop engines.

SOURCE: Letňany, Výzkumny a Zkušební Letecký Ústav: Zprávodaj VZLÚ, no. 4, 1962, 9-20

TEXT: The article lists the advantages of turboprop engines. It is suggested that the best applications for these engines are modern small transport aeroplanes used in feeder lines or as aero-taxis. The influence of the selection of the engine on the shape of the new aeroplane designed is discussed. The power of the motor decreases with increasing altitudes more slowly than the resistance of the air. The decrease of the fuel usage with increasing altitudes is shown in a graph. The economical aspects of the motors are discussed. A method is given for the calculation of the optimum cruising altitude of an aeroplane; for this purpose several graphs are given plotting the basic aerodynamic parameter of the aeroplane against the specific weight and velocity, efficiency against flight velocity, the ratio of the induced and parasite drags at sea level, optimum

Card 1/2

L 16588-63

Optimum cruising altitudes...

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Z/059/62/000/004/002/007

height against aerodynamic parameters. The optimum is determined basically by the economical approach which depends of course on the cost of fuel and of the aeroplane with the engine. The solution given throws some light on the general question of the economical cruising altitudes. The determination of the aerodynamic parameters of the aeroplane is rather a complex problem which requires a detailed research. This aspect of the problem is not discussed in the article. Orig. art. has 16 figures, 50 equations, 4 references (2 Czech, 1 Soviet, 1 Western).

Card 2/2

L 20592-66 EPF(a)-2/EP(t) 1-P(e) ES/JD/WJ/JG

ACC NR: AP6012005 SOURCE CODE: CZ/0038/66/000/001/0003/0007 43 13

AUTHOR: Zajic, Vladimir; Vlcek, Jiri; Hudecek, Milan

ORG: [Zajic] Institute for Nuclear Research, CSAV, Rez (Ustav jaderneho vyzkumu CSAV); [Vlcek, Hudecek] Nuclear Power Plant, Skoda Specialized Enterprise, Plzen (Skoda, cborovy podnik Plzen, zavod Jaderne elektrarny)

TITLE: Detection of uranium fuel element failures during inactive tests in CO sub 2 streams 21

SOURCE: Jaderna energie, no. 1, 1966, 3-7

TOPIC TAGS: uranium, reactor fuel element, aerosol, radiometry

ABSTRACT: A radiometric method of the detection of uranium released in an inactive test loop by rod-type fuel element is described. In comparison with some chemical methods of analysis, the radiometric method for detection of uranium aerosols in the test loop is simple and sensitive. The paper was presented by S. Simek. Orig. art. has: 6 figures and 16 formulas. [NA]

SUB CODE: 18 / SUEN DATE: none / OTH REF: 003 / SOV REF: 004

Card 1/1 BK

UDC: 621.039.543.45: 621.039.548.8 2



HUDECEK, O.

Radioamateurs also took part in the fighting. p.101 Until it is not too late;  
position of amateurs of users of short wave frequency. p.103

RADIOAMATER. (Savez radioamatera Jugoslavije) Beograd, Yugoslavia  
Vol. 13, no.4, April 1959.

Monthly list of East European Accessions (EEAI) LC, Vol.8, no.9, Sept. 1959

Uncl.

KOZOJED, Vaclav; HUDECEK, Slavko

Agglutination of powdery phenolic cements. Chem prum 13  
no. 12: 669-671 D '63.

1. Moravske chemicke zavody, n.p., Ostrava.

HUDECEK, S.

CZECH

New colorimetric determination of formaldehyde. Karel Dušek and Slavko Hudček (Výzkumný ústav syntetické chemie, Praha). *Chem. Listy* 48, 1654-55 (1953).—Dissolve 0.5 g. methyl violet in 400 ml. hot aq. H<sub>2</sub>O, cool, treat with 5 ml. concd. HCl, and 12.1 g. cryst. Na<sub>2</sub>SO<sub>4</sub>. After solution add 5 ml. concd. HCl, fill to 600 ml., and filter with 0.5 g. charcoal. This reagent gives a color reaction with CH<sub>2</sub>O; it is superior to the usual Schiff reagent in that the course of the extinction curve is linear in the range of concn. of CH<sub>2</sub>O from 0.09 to 0.44 mg./ml.; and CH<sub>2</sub>O can be detd. in the presence of AcH even at pH 3; and 2-3 fold excess of AcH. Absorption max. of the color is at 5780 Å. Const. color intensity is obtained at 12° after 60 min. up to 24 hrs. M. Hudček

CA HUDECHEK, S.

10

Addition of amines to methyl methacrylate and the effect of water (as the reaction product). A. Vystrel and S. Hudlicky (Charles Univ., Prague). *Chem. Listy* 44, 362-4 (1950).—Aliphatic amines add to  $\text{CH}_2=\text{C}(\text{Me})\text{CO}_2\text{Me}$  (I) and form *N*-substituted  $\text{H}_2\text{NCH}_2\text{CH}(\text{MeCO}_2\text{Me})$  in nonaq. mediums. I (1 mole) and 1.1 moles  $\text{Et}_3\text{NH}$ ,  $\text{C}_4\text{H}_9\text{N}$ , morpholine, and piperazine, resp., in abs. EtOH were allowed to stand at room temp. 22 days; vacuum dist. yielded 93%  $\text{Et}_3\text{NCH}_2\text{CH}(\text{MeCO}_2\text{Me})$ ,  $b_p$  88.5°, 77%  $\text{C}_4\text{H}_9\text{NCH}_2\text{CH}(\text{MeCO}_2\text{Me})$ ,  $b_p$  90.5-100°, 61.2° (AC<sub>2</sub>H<sub>4</sub>),  $\text{NCH}_2\text{CH}(\text{MeCO}_2\text{Me})$ ,  $b_p$  112°, and 3.8% *N*-methyl-1-piperazinepropionic acid piperazide, m. 221° (decompt.), resp. In aq. medium, a shift of the esterically-bound Me to the amino group resulted in the formation of *N*-methyl-substituted betaines: Approx. 30% aq. solns. of amines (2.5 moles) were treated with 1 mole I, the mixt. homogenized with EtOH, the solvents stripped off in vacuo after 4 weeks at room temp., the residues treated with EtOH-Et<sub>2</sub>O (1:1), allowed to crystallize, and the hygroscopic products recrystd. from EtOH. From  $\text{Et}_3\text{NH}$ ,  $\text{Me}_3\text{NH}$ ,  $\text{Et}_3\text{NH}$ , and  $\text{C}_4\text{H}_9\text{N}$ , the following compds. were obtained: 95%  $\text{Et}_3\text{MeNCH}_2\text{CH}(\text{MeCO}_2\text{H})$ , m. 136-6.5°, 98%  $\text{Me}_3\text{NCH}_2\text{CH}(\text{MeCO}_2\text{H})$ , m. 123-4°, 92%  $\text{MeEt}_2\text{NCH}_2\text{CH}(\text{MeCO}_2\text{H})$  (II), m. 85.5-6.5°, and 95%  $\text{MeC}_2\text{H}_5\text{NCH}_2\text{CH}(\text{MeCO}_2\text{H})$  (III), m. 106-8°.  $\text{NH}_4$  and  $\text{MeNH}_4$  for est  $\text{CH}_2=\text{C}(\text{Me})\text{CO}_2\text{NH}_2$  (m. 104-5°, 62%) and  $\text{MeNHCH}_2\text{CH}(\text{MeCO}_2\text{NHMe})$ , resp. The amino acids and betaines were titrated with  $\text{HClO}_4$  in AcOH. II and III were decompt. at 140° and 175°, resp., and the liberated amines titrated.

M. Hudlicky

Hudeček, S.

439. New method for the colorimetric determination of formaldehyde. K. Dušek and S. Hudeček (Výzkumný ústav syntetických pryskyřic, Pardubice, Czechoslovakia) (Chem. Listy, 1954, 48 (11), 1628-1633).—A new reagent for the colorimetric determination of formaldehyde, possessing a number of advantages over Schiff's reagent, is prepared as follows. Crystalline  $\text{Na}_2\text{SO}_3$  (12.1 g) is dissolved in a soln. of methyl violet (0.5 g) in  $\text{H}_2\text{O}$  (400 ml) containing conc.  $\text{HCl}$  (5 ml). After more conc.  $\text{HCl}$  (5 ml) has been added, the soln. is diluted to 500 ml, set aside for 8 hr., then treated with activated charcoal (0.5 g) and, after 5 min., is filtered. The almost colourless reagent forms with formaldehyde a colour with an absorption max. at  $\approx 578 \text{ m}\mu$ . The extinction curve of the new reagent, unlike that of Schiff's, is linear for a certain concn. range of formaldehyde (0.09 to 0.44 mg per ml). Formaldehyde can be determined after 1 hr. in the presence of a 2 to 3-fold excess of acetaldehyde at a pH as high as 3.

G. GLASER

HILDEČEK, S.

CZECH

Paper chromatography of phenolic alcohols and monobasic phenols. Slavko Hildeček (Výzkumný ústav synth. pryskyřic, Pátek, Czech.). Chem. Listy 49, 141-2 (1955).—A special method for paper chromatography of monobasic phenols and p-phenolic alcs. is based on the use of cyclohexane-CHCl<sub>3</sub>-EtOH and on effecting the chromatography of Whatman no. 1 paper enclosed between 2 glass plates 200 X 300 mm. With cyclohexane:CHCl<sub>3</sub>:EtOH in the ratio 27:3:0.6, the following R<sub>f</sub> values were found (phenol, temp., R<sub>f</sub>, color): PhOH, 27°, 0.23, yellow; o-cresol, 27°, 0.49, brown; m-cresol, 27°, 0.41, orange; p-cresol, 27°, 0.33, red; 1,2,3-xyleneol 21°, 0.18, yellow; 1,2,4-xyleneol, 20°, 0.62, orange; 1,2,5-xyleneol, 21°, 0.66, orange; 1,3,4-xyleneol, 20°, 0.43, red; 1,3,5-xyleneol, 20°, 0.43, yellow; p-tert-butylphenol, 21°, 0.50, red; for eluents in ratio 6:24:0.6: PhOH, 21.5°, 0.62, yellow; saligenin, 21°, 0.23, yellow; p-HOC<sub>6</sub>H<sub>4</sub>CH<sub>2</sub>OH, 21°, 0.05, yellow; cresol, 21.5°, 0.80, brown; p-(hydroxymethyl)-o-cresol, 21°, 0.18, orange; o-(hydroxymethyl)-o-cresol, 21°, 0.07, orange; bis(hydroxymethyl)-o-cresol, 21°, 0.09, orange; 3,3'-dimethyl-4,4'-dihydroxy-6,6'-bis(hydroxymethyl)lphenylmethane, 21°, 0.37, orange; m-cresol, 21.5°, 0.81, orange; p-cresol, 21.5°, 0.81, red; bis(hydroxymethyl)-p-tert-butylphenol, 25°, 0.45, red.

M. Hildeček

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UNDECK S.

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6 Potentiometric determination of weak acids. D. Baranovskii and S. I. Iosadze. *Vysokomol. Soedin. synth. prikl.* **1970**, **12**, 1123-1124. With 1 fig. (Chem. Abstr. **1971**, **72**, 1123-1124). Weak acids as PhOH, o- and p-C<sub>6</sub>H<sub>4</sub>(OH)<sub>2</sub> were titrated with 0.2M NaOH with the use of S<sub>1</sub> and satd. NaCl electrodes connected to a galvanometer (10<sup>-6</sup> amp./mm.) and an electrolytic condenser (500 microfarads) in series, and the condenser (2000 microfarads) being parallel to the galvanometer. A 6-fold concn. of an indifferent electrolyte (HNO<sub>3</sub>, KCl) over that of the weak acid was added to the sample. The titration curves showed a sharp max. **1970-11-14**

HUDCEK, SLAVKO

2  
 Determination of phenol and o-cresol by paper chromatography. Slavko Hudcek and Dana Hranová (Výzkumný ústav synth. přemyslu, Pardubice, Czech.). *Chem. Listy* 50, 1463-6 (1956); cf. C.A. 49, 5216c. Determination of phenol (I) and o-MeC<sub>6</sub>H<sub>4</sub>OH (II) in novolak- and resole-type phenolic resins is based on paper chromatography between two horizontal glasses by using a mixt. of 21 ml. cyclohexane, 9 ml. CHCl<sub>3</sub>, and 0.6 ml. EtOH as solvent, and p-Bu<sub>4</sub>C<sub>10</sub>N<sub>4</sub>X as developing agent. R<sub>f</sub> of I and II were 0.35-7 and 0.63-0.71, resp.  
 M. Hudček

Also appears in: *Sborník Československých chemických Rad (Collection of Czech. Chemical Communications)*, Vol. 22, No. 14, Nov. 1957, Praha, Československo, p. 1173.



CZECHOSLOVAKIA / Chemical Technology. Chemical Products H  
and Their Applications. Synthetic Polymers.  
Plastics.

Abs Jour: Ref Zhur-Khimiya, 1959, No 4, 13750.

Author : Hudecek, Slavko; Chromocek, Richard; Sytar, Milo-  
Slav.

Inst : Not given.

Title : Obtaining Ionites by Beaded Polycondensation.

Orig Pub: Chem. prumysl, 1957, 7, No 9, 514-517.

Abstract: Ionites in the form of pellets, similar in size, were obtained by beaded polycondensation during emulsification of a reaction mixture in an inert medium (vaseline or transformer oil). A decrease in the dimensions and uniformity of the pellets is aided by an increase in the mixing rate, bringing the density of the inert medium up to the density of

Card 1/2

Distr: 4E2c(j)

7 2 May 5

Colorimetric determination of hexamethylenetetramine in molding compounds. Dana Bernová and Slavko Hudeček (Research Inst. Synthetic Resins & Varnishes, Pilsen, Czech.). *Chem. průmysl* 8(33), 218-20 (1968).--Free hexamethylenetetramine in phenolic molding compds. and moldings is detd. by acid hydrolysis of the water-sol. N compds., steam distn. of  $\text{CH}_2\text{O}$ , and colorimetric detn. with "MV" reagent. To prep. the reagent dissolve 0.5 g. of methyl violet in 400 ml. of hot  $\text{H}_2\text{O}$ , after cooling add 5 ml. of concd.  $\text{HCl}$ , 12.1 g of cryst.  $\text{Na}_2\text{SO}_4$ , another 5 ml. of concd.  $\text{HCl}$ , make up to 500 ml. with  $\text{H}_2\text{O}$ , let stand overnight, add 0.5 g. of powd. active C, and filter. The method is as follows: Grind approx. 1.5-3.0 g. of the sample, leach for 1 hr. with 50 ml. of  $\text{H}_2\text{O}$ . Make the filtrate up to 500 ml. with  $\text{H}_2\text{O}$ . Hydrolyze a 50-ml. aliquot with 10 ml. of 50%

$\text{H}_2\text{SO}_4$ , and steam dist. the  $\text{CH}_2\text{O}$  in a Parnas-Wagner app. (C.A. 16, 942). Make the distillate up to 100 ml. Add to 1 ml. of distillate 5 ml. of Mollvain buffer of pH 3 and 5 ml. of "MV" reagent. After allowing the sample to stand for an hr. det. the color. The error is  $\pm 2\%$ , better than in the Nessler reagent or the iodometric method. H.

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jsf

HUDECEK, S.

Some esters of maleic and fumaric acid. J. Klaban and S. Hudcek (Vyskum. Ústav synt. org. lsk., Pardubice). Collection Czech. Chem. Commun. 25, 2307-12(1960) (in Russian).—Azeotropic esterification of 1 mole maleic anhydride (I) with 3 moles alc. in 11 moles  $C_6H_6$  under catalysis of 0.1%  $p\text{-MeC}_6\text{H}_4\text{SO}_3\text{H}$  (II) gave sterically pure (as detd. polarographically) dialkyl maleates (alkyl, time in hrs., b.p./mm.,  $n_D^{20}$ ,  $d_4^{20}$  given): Et, 15.5, 79°/2, 1.4398, 1.0640; Pr, 17, 71°/0.25, 1.4422, 1.0230; Bu, 16.5, 83°/0.1, 1.4446, 0.9952; Am, 25, 106°/0.13, 1.4470, 0.9744;  $C_6H_{11}$ , 12, 116°/0.1, 1.4492, 0.9591;  $C_8H_{17}$ , 23, 125°/0.08, 1.4510, 0.9465;  $C_{10}H_{21}$ , 15, 141°/0.06, 1.4530, 0.9375;  $C_{12}H_{25}$ , 15, 162°/0.1, 1.4545, 0.9288; and cetyl, 15, —, —, — (m. 43-4.5° on the Kofler block). Similarly, 1 mole fumaric acid, 3 moles alc., 9 moles PhMe, and 2% II gave the corresponding fumarates (time in hrs., b.p./mm.,  $n_D^{20}$ , and  $d_4^{20}$  given): 24, 52°/1, 1.4404, 1.0513; 24, 88°/1.5, 1.4432, 1.0113; 13, 95°/0.3, 1.4464, 0.9869; 13, 122°/0.5, 1.4491, 0.9603; 13, 124°/0.4, 1.4518, 0.9539; 23, 144°/0.2, 1.4538, 0.9432; 7.5, 154°/0.12, 1.4553, 0.9347; 12, —, —, — (m. 25.4-26°); and 13, —, —, — (m. 68.5-69.5°). In the above maleate preps., the amt. of the catalyst and the temp. was of importance to obtain sterically pure products. Esterification (13 hrs.) of I with  $C_6H_5OH$  in absence of catalyst in  $C_6H_6$ , PhMe, and xylene, resp., gave 0.0, 0.25, and 5.2% corresponding fumarate as by-product. JHM Pinal

4  
2 Jaf (NA) (Mg)

KLABAN, I.[Klaban, J.]; GUDECHEK, S.[Hudecek, S.]

Some esters of maleic and fumaric acids. Coll Cz Chem 25 no.9:  
2307-2312 S '60. (EEAI 10:9)

1. Nauchno-issledovatel'skiy institut sinteticheskikh smol i lakov,  
Pardubice. 2. Nyneshniy adres: Moravskiy khimicheskiye zavody,  
Zavod Ostravit, Ostrava I (for Hudecek)

(Esters) (Maleic acid) (Fumaric acid)

HUDECEK, V.

Making calculations for an induction furnace without an iron core. p. 428.  
(Elektrotechnicky Obzor, Vol. 45, no. 8, August 1956. Czechoslovakia)

SO: Monthly List of East European Accessions. (EEAL) LC. Vol. 6, No. 6,  
June 1957. Uncl.

HUDECEK, Vaclav

SURNAME (in caps); Given Names

Country: Czechoslovakia

Academic Degrees: Doctor of Veterinary Medicine

Affiliation: Blatna

Source: Prague, Veterinarstvi, Vol XI, No 7, 1961, pages 272-273.

Data: "Liver Abscess in Cows. Diagnosis intra vitam."

THUNDERA V.

- Prague, Veterinarni, Vol. XII, No 4, April 62  
Copyright 1962
1. "Law on the Veterinary Care," Václav KUBA, MUDr./Doc-  
tor of Veterinary Medicine, C.Sc. (Candidate of Science),  
Prague pp 97-100.
  2. "Immunitation of Calves with a Modified Virus of Anthrax  
Disease," BASTIANEK EKDA, MSc. vet. (Veterinarian),  
Bratislava pp 101-102.
  3. "Prevention of Diseases in Pigs in the Large-Scale Pro-  
duction Plant for Pigs," Prof. Václav KUBA, MUDr.  
Dr. Sc. (Doctor of Science), Krom pp 102-103.
  4. "The Development of Farm Animals," Miroslav BARTIŠ, C.  
Sc., Dr. Docent, Koclet pp 104-107.
  5. "Green Collection from Boats," Practical Remarks," Jiri  
VÁCLAV, MUDr. Václav pp 108-111.
  6. "Regularity in the Collection of a Season for Abortion  
or Obstetric Complications," Z. TILICH, MUDr. Brno  
pp 112-113.
  7. "Importance of Biological Control of Inoculation," Zde-  
nek DUBEN, MUDr. Brno pp 114-117.
  8. "Regularity in Farm Technology," Aleš VERNER, MUDr.  
Pelhřimov, p 117.
  9. "Air-Conditioning in Delivery Rooms for Sows in the  
Pelhřimov," Aleš VERNER, MUDr. Pelhřimov  
pp 117-118.
  10. "Sleeping Devices in Poultry Stables," Rudolf  
DUBEN, MUDr. Pelhřimov pp 118-119.
  11. "Insurance Contract No 0707," Václav KUBA, MUDr. Pra-  
gue pp 119-122.
  12. "Veterinary Requirements for Meat Export from South  
America," Jaroslav ČERNÝ, MUDr. Jihlava pp 122-124.
  13. "Ritchie-Bell Pelletizer in Cattle," Josef TILICH, MUDr.  
and Zdeněk BARTIŠ, MUDr. Mladá pp 124-126.
  14. "Competition in the Veterinary Service to Celebrate the  
Twenty-Second Anniversary of the Communist Party of Czechoslovakia,"  
pp 2 and 3 of cover.
  15. "Awarding the title of the Brigade of Socialist Labor  
in the Veterinary Research Institute ČSAV (National  
Research Institute of Veterinary Medicine) in the Department of  
of Agriculture, Brno (Zemědělský ústav veterinární)  
ČSAV), Brno pp 2 and 3 of cover.

1/1

HUDECEK, Z.

Sparkproof signaling systems. p. 237.

UHLI (Ministerstvo paliv) Praha, Czechoslovakia. Vol. 1, no. 7, July 1959

Monthly list of East European Accessions (EEAI), Vol. 9, no. 1, Jan. 1960

Uncl.



80407

Z/009/60/000/01/034/038  
E112/E253

5.3832

AUTHORS: Hudeček, Z., and Zvonař, V

TITLE: The Effect of the Constitution of Polyester Resins on  
the Optical Properties of Corrugated Roofings

PERIODICAL: Chemický průmysl, 1960, Nr 1, pp 44-50

ABSTRACT: The authors have studied the properties of laminated glass fibres for corrugated roofing materials. These should be able to transmit as much light as possible. Ideal conditions would be if refractive indices, dispersion and heat-coefficient would be identical for both, the glass fibre and the hardened resin. It has to be born in mind that the optical properties of the resin are changed after setting and polymerisation and the problem is thus reduced to the preparation of a resin which would have identical optical properties to that of the glass fibres. The glass fibres used for the laminates were in all cases boron-glasses, free of alkali of a refractive index 1.548 to 1.553 and an Abbé number 46 to 48. The aim of the present investigation has been the establishing of the fundamental optical properties of unsaturated polyester resins, the effect of starting

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801,07

Z/009/60/000/01/034/038  
E112/E253

The Effect of the Constitution of Polyester Resins on the Optical Properties of Corrugated Roofings

materials and the change of optical properties during polyesterification and copolymerisation. The authors describe methods of testing. Samples to be tested were prepared by pouring the resins on glass plates and hardening at 100°C in an oven. Methylcyclohexanone-peroxide was used as initiator and cobalt naphtenate was the accelerator. The refraction indeces and mean dispersion were measured by Refracto meter, type Meopta, at -20°C, 0°C, 20°C, 40°C. The following variants were studied:

1. Effect of degree of polymerisation: It was seen that during polyesterification the refractive index increases. Particularly rapidly at the beginning of the reaction.
  2. Effect of acid: The authors have studied the optical properties of polyester from maleic, itaconic, and citraconic acid with ethylene glycol. The resins were modified with phthalic anhydride. Results are tabulated, indicating that the character of the unsaturated acid has only very little influence on the optical properties.
- A very much greater influence is exerted by the saturated

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8/1/77  
Z/009/60/000/01/034/038  
E112/E253

The Effect of the Constitution of Polyester Resins on the Optical Properties of Corrugated Roofings

dicarboxylic acid which is used as modifier. The greatest increase in the refractive index is caused by chlorinated aromatic acids, such as tetrachloro phthalic acid. Effect of modifying acids are given in two tables. The authors have also established that saturated aliphatic dicarboxylic acids reduce the refractive index of the unsaturated polyester.

3. Effect of dioles: Similarly to the acids, the alcoholic components have also an effect upon the optical properties, although not quite so pronounced. The refractive index does not depend on the length of the chain but on the character of the hydroxyle groups, that means whether they are primary, secondary or tertiary. The refractive index decreases with increased substitution. The presence of a chlorine in the molecule of the diol considerably increases the refractive index, but an ether-linkage works in the opposite way. The lowest refractive indices are obtained from dipropylene glycol.

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Z/009/60/000/01/034/038  
E112/E253

The Effect of the Constitution of Polyester Resins on the Optical Properties of Corrugated Roofings

4. Effect of Monomers: The authors have studied the effect of styrene and methyl methacrylate. Whereas the effect of styrene was negligible that of methyl methacrylate was considerable.

5. Effect of temperature: The refractive index is affected by temperature in a linear relationship but it was seen that the character of the polyester itself exerts only a small effect. The influence of the monomer is of greater importance. The authors conclude from their work that it is almost impossible to produce a glass laminate in which the optical properties of glass and resin can be completely compensated. The best method of modification of optical properties would seem to be the choice of the diol and the saturated dicarboxylic acid, while the unsaturated acids show hardly any effects. The authors suggest as starting materials 1,3-butanediol and cycloolefinic acids. A further modification may be achieved by diluting the polyester resin with methyl methacrylate. The authors were unable to eliminate the differences of thermal coefficient

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Z/009/60/000/01/034/038  
E112/E253

The Effect of the Constitution of Polyester Resins on the Optical Properties of Corrugated Roofings

between glass and resin.

There are 6 figures, 6 tables and 8 references, 4 of which are German, 1 Czech, 1 Japanese and 1 Swedish.

ASSOCIATION: Výzkumný ústav syntetických pryskyřic a laků,  
Pardubice (Research Institute of Synthetic Resins and  
Varnishes, Pardubice) ✓

SUBMITTED: June 30, 1959

Card 5/5

88365

Z/004/60/000/012/002/005

A121/A026

15.8109

AUTHOR: Hudeček, Z.

TITLE: Unsaturated Polyester Resins and Their Use

PERIODICAL: Nová Technika, 1960, No. 12, pp. 554 - 555

TEXT: Dealing with unsaturated polyester resins belonging to the group of contact resins, the author describes their processing and use in the production of polyester glass laminates, of so-called solvent-free resins and of casting resins. Polyester glass laminates used as construction materials have a low specific weight (1.4 - 2.0 g/cm<sup>3</sup>) and a high ultimate strength, good electric insulating and dielectric properties, they are antimagnetic, sound-proof, heat insulating and transparent up to 90% depending on the type. They resist heat of 60-100°C, special polyester resin laminates even up to 200°C. They also resist salt water, diluted acids and alkalines, oil and fuel. The common types are combustible, the special types self-extinguishing. Products made from unsaturated polyester resins are listed among others 40-m-long boats, fuel containers, covers for radar antennas etc. The main producers are the Kovona, np. Karvina (Kovona, People's Enterprise, Karvina) trade mark POLYTEX, and the Plastimat, np. Jablonec nad Nisou, závod Praha (Plastimat,

Card 1/3

88365

Z/004/60/000/012/002/005

A121/A026

# Unsaturated Polyester Resins and Their Use

People's Enterprise, Jablonec nad Nisou, Prague Plant), trade mark PLASTIVER. Solvent-free lacquers make possible the application of firm and stable layers in a single pass; they are hard, resistant to abrasion, heat and chemicals. In the Výzkumný ústav syntetických pryskyřic a laků (Research Institute of Synthetic Resins and Lacquers) in Pardubice, Czechoslovak type resins (trade mark VEROPAL) and lacquers (VEROS) have been developed; their production has been started in 1959 by the Spolek pro chemickou a hutní výrobu (Association for Chemical and Metallurgical Production) in Ústí nad Labem under the designation ChS-Polyesters. ChS-Polyester 104 (former Veropal 004) is a universal polyester resin designed for production of glass laminates. ChS-Polyester 105 (former Veropal 005) is softer and more elastic being the basis of the casting resin ChS-Polyester 101 and of the transparent solvent-free lacquer ChS-Polyester 001 (former Veros 1), used in wood finishing. The production of ChS-Polyester 108 (former Veropal 008) and of solvent-free pigmented polyester lacquers will be started in the near future. Introducing the production of self-extinguishing resins (former designation Veropal 006 and 007) and of non-inhibited lacquer (former designation Veros 2), nearly all types of imported unsaturated polyester resins and lacquers will be produced in the CSR. A comparison between the properties of polyester glass laminates, structural steel and aluminum alloys, published in the periodical Plastverarbeiter 10, No. 6, 2. Supplement, 1959.

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88365

Unsaturated Polyester Resins and Their Use

Z/004/60/00C/012/002/005  
A121/A026

is given in a table on Page 554. There is 1 table.

ASSOCIATION: ZP ČS. VTŠ - VÚSPL, Pardubice (Plant Branch of the Czechoslovak Scientific-Technical Society at the Research Institute of Synthetic Resins and Lacquers, Pardubice)

Card 3/3



Z/009/61/000/002/008/008  
E112/E453

AUTHOR: Hudeček, Zdeněk

TITLE: Polyester Moulding Compounds

PERIODICAL: Chemický průmysl, 1961, No.2, pp.109-110

TEXT: Interest in polyester moulding compounds is increasing, thanks to their excellent mechanical and electrical properties. The essential components of polyester premixes are unsaturated polyester resins, mineral fillers, reinforcing fibres, catalysts, pigments, lubricants and inhibitors (where long storage life is required). The main requirements which the resin components have to meet are: high reactivity, thermal stability, high viscosity at moulding temperatures and good mechanical and electrical properties. The base alkyd resins are of the propyleneglycol-maleate-phthalate type, using styrene monomer as solvent. Their shortcomings are low viscosity at moulding temperatures, resulting in defects during moulding, or excessive viscosity, leading to insufficient impregnation of the reinforcing fibres. Resins incorporating the reaction products of bis-phenols and alkylenoxides are also being considered. They give flatter viscosity-temperature curves in addition to improvements in chemical resistance. The requirement Card 1/3 ✓

Polyester Moulding Compounds

Z/009/61/000/002/008/008  
E112/E453

of high distortion temperatures is considered desirable, so that mouldings will be sufficiently rigid to extract from the mould without causing distortion. To increase thermal stability by increasing the unsaturation of the polyesters is not feasible, as it leads to greater reactivity (premature hardening of the premix). Fillers include: calcium carbonate, mica, silica, asbestos, talc, kaolin. Low-alkali glass is usually employed as reinforcing fibre and a silane finish is preferred. The length of the fibre is usually 0.5 to 2.5 cm. Mixed glass lengths are not recommended. For lower strength requirements, cheaper reinforcements may be used, e.g. nylon, jute, sisal, asbestos, cotton. Catalysts include: dibenzoyl-peroxide, or mixtures of the latter with t-butyl-perbenzoate. Lubricants are used (stearic acid or zinc- or magnesium-stearate) to give easy release from the moulds. During processing in sigma-blade mixers, difficulties may be encountered leading to filamentization and breakdown of strands. Mixing time should, therefore, be reduced to a minimum. When benzoyl peroxide is used as catalyst, the mixing temperature should not exceed 60°C. Optimal glass contents are in the order of 25%. Polyester moulding

✓  
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Card 2/3

Polyester Moulding Compounds

Z/009/61/000/002/008/008  
E112/E453

compounds with higher glass contents are produced by extruding the rovings through a bath containing resin, filler and other additives and cutting them up to the desired length. Two tables are included which give the following: list of conventional filler, giving particle size and oil absorption; composition and formulation of some typical polyester moulding premixes, including bending strength and bending strength at impact. There are 2 tables and 1 non-Czech reference.

(Note: This is an abridged translation)

ASSOCIATION: Výzkumný ústav syntetických pryskyřic a laků,  
Pardubice (Institute for Synthetic Resins and  
Lacquers, Pardubice)

Card 3/3

FINKOVA, A.; HUDECKOVA, M.

Relation of labor management in breech presentation to perinatal mortality. Cesk. gynek. 29 no.6:557-559 Ag '64.

1. Gyn.-por. klin. lek. fak. Karlovy University v Hradci Kralove (prednosta prof. dr. K. Vacha, DrSc.).

KOVACS, P.; NAGYOVA, Z.; technicky spolupracovala HUDECOVA, V1.

Contribution on the metabolism of phenylalanine and tyrosine in barley.  
Cesk. farm. 12 no.1:32-35 Ja '63.

1. Katedra biochemie a mikrobiologie Farmaceutickej fakulty University  
Komenenského, Bratislava.

(PHENYLALANINE)

(TYROSINE)  
(GRAIN)

(METABOLISM)

R/007/62/013/002/001/001  
D014/D105

**AUTHORS:** Debie, C.N., Doctor of Engineering, Hudiac, Paula, Engineer,  
and Nica, Stelian, Chemist

**TITLE:** Evaluation of naphthenic lyes - a quick method for determining  
naphthenic acid efficiency

**PERIODICAL:** Petrol și Gaze, v. 13, no. 2, 1962, 71 - 77

**TEXT:** The article presents a new method of determining naphthenic acid efficiency worked out by the authors for use in the evaluation of naphthenic lyes. In conventional naphthenic lye evaluation methods, the determination of naphthenic acid efficiency is a long and tedious operation, the results of which are not very accurate. The authors, therefore, worked out a new efficiency determination method, based on the graphical integration of the variation curve of acidity indices, supplying a higher degree of approximation than that obtained by experiments. To work out this method, laboratory investigations were conducted on some naphthenic lyes obtained from the current production of the Ploiești refineries. Decoiling and separation of acids was carried out by distil-

Card 1/6

Evaluation of naphthenic lyes - .....

R/007/62/013/002/001/001  
D014/D105

lation or extraction. The parabolical variation curves of the acidity indices are generally concave, but in the case of purified and distilled acids the curves are very flat. To find the percentile values of the content of every standard product, the method of equivalent triangles may be applied. Thus, to obtain a naphthenic acid mixture with an acidity index  $a$  from two components, the one with an acidity index  $a_1$  and the other an acidity index  $a_2$ , the two quantities  $c_1$  and  $c_2$  taken from the mixed components should satisfy the equation system

$$a_1 \cdot c_1 + a_2 \cdot c_2 = a \cdot c \quad (1) \quad \checkmark$$

$$c_1 + c_2 = c \quad (2)$$

From these two relations, it results that:

$$(a_1 - a) \cdot c_1 = (a - a_2)c_2 \quad (3)$$

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Evaluation of naphthenic lyes - .....

R/007/62/013/002/001/001  
D014/D105

In an "acidity index" and "distilled quantity" system of coordinates, if the acidity curve is a straight line as shown in Fig.4, the ABM and CDM triangles are identical, thus

$$c_1 = c_2 \quad \text{and} \quad a_1 - a = a - a_2.$$

To obtain from a fraction with an acidity index  $a_1$  a product with an acidity index  $a$ , it is necessary to mix the fraction with an equal amount of heavier fractions from the same acid having an acidity index  $a_2$ . If the acidity index is a flat parabolic curve as shown in Fig.5, the same relation (3) may be used for the curvilinear triangles ABMR and CDSM. For the calculation, only the surfaces of the ABM and CDM rectilinear triangles may be used, while the plus or minus corrections should be carried out by the AMR and DMS sector surfaces. Knowing the ABMR triangle, it becomes necessary to find the position of the CD vertical side, so that the CDSM triangle would have a surface equal to the first one. Thus, if the  $a$  and  $a_1$  acidity indices and the  $c_1$  quantity from the light components are known, the  $a_2$  acidity index and the  $c_2$  quantity from the heavy components may be graphically determined. These values are necessary to obtain

Card 3/6



Evaluation of naphthenic lyes - .....

R/007/62/013/002/001/001  
D014/D105

$c_1 + c_2$  quantity of a mixture of naphthenic acids with an acidity index  $a$ .  
The evaluation of naphthenic lyes by the graphical method recommended by the authors eliminates long-lasting experiments and excludes the evaluation errors arising in conventional methods. There are 6 figures, 2 tables and 7 references: 4 Soviet-bloc and 3 non-Soviet-bloc. The two references to English-language publications read as follows: A.N. Sachanen, "Constituenții chimici ai petrolului" (Chemical components of petroleum), Rheinhold, Publ. Comp., New-York, 1945; Chem. Week, 78, no. 38, 1955, Sept., 24, 105. ✓

ASSOCIATION: Uzina petrochimică (Petrochemical Plant), Ploiești.

SUBMITTED: June 23, 1961.

Card 4/6

HUDIK, Josef, inz.

The MR 6/15-B low-intensity magnetic separator. Rudy 12  
no.10:388-389 O '64.

1. Pohronske strojarne, Hlinik nad Hronom.

HUDINA, Ela

SURNAME (in caps); Given Names

Country: Yugoslavia

Academic Degrees: Prof

Affiliation: /not given/, Zagreb

Source: Belgrade, Narodno Zdravlje, Vol XVII, No 5, May 1961,  
pp 162-167

Data: "Protection of the Mental Health of Children."

FUDINGER, I

CZECHOSLOVAKIA

JOSSE, J; ANDRUSKA, J; SOKOL, P.

Institute of Organic Chemistry and Biochemistry of the  
Czechoslovak Academy of Sciences, Prague (for all)

Prague, Collection of Czechoslovak Chemical Communications,  
No 7, 1963, pp 1796-1798

"Amino Acids and Peptides. XVIII. Structural analogues of  
cytosine modified in position 2 of the peptide chain:  
Preparation and some chemical and biological properties."

HUDLER, Libor; JEDLIČKA, Jiří; ŠIMEK, Jiří; ČERMÁK, Josef; PAZDREK, Jaroslav.

"APPROVED FOR RELEASE: Thursday, July 27, 2000

CIA-RDP86-00513R0005

310

Cylindrical rotating oxygenator. (Preliminary report). Sborn.  
ved. prac. lek. fak. Karlov. Univ. (Hrad. Kral.) 6 no. 3: 239-244 '63.

1. Chirurgická klinika (prednosta: prof., MUDr. J. Procházka);  
Katedra velené chirurgie VLVDU (prednosta: doc., MUDr. A.  
Benes) a Ústřední biochemická laborator (prednosta MUDr.  
J. Jicha), Universita Karlova.

\*

PROCHAZKA, J.; JEDLICKA, J.; HUDLER, L.; ENDRYŠ, J.

Plastic surgery of the aortic valve from the pericardium (experimental study). Reshl. chir. 40 no.9:608-612 S '61.

1. Kardiochirurgické středisko LFUK v Hradci Králové, přednosta prof. dr. Jaroslav Procházka.

(AORTIC VALVE surgery)

CZECHOSLOVAKIA

HUDLICKY, M; KAKAC, B; LEJHANOVA, I

Research Institute for Pharmacy and Biochemistry,  
Prague - (for all)

Prague, Collection of Czechoslovak Chemical Communi-  
cations, No 1, January 1967, pp 183-189

"Organic compounds of fluorine. Part 12: The synthesis  
of 2-carboxy-3-methyl-5-fluorovaleric acid, 2-carboxy-  
5-fluorocaproic acid, and 2-carboxy-5,5-difluorocaproic  
acid."

CZECHOSLOVAKIA

HUDLICKY, M

Research Institute for Pharmacy and Biochemistry, Prague

Prague, Collection of Czechoslovak Chemical Communications  
No 1, January 1967, pp 453-457

"Organic compounds of fluorine. Part 11: The synthesis  
of  $\delta, \delta$ -difluoronorleucine."

FRONEK, A.; HUDLICKA, O.

The effect of hyper- and hypovolemia and of epinephrine on the energy expenditure and efficiency of the left ventricle. *Physiol. Bohemoslov.* 14 no.3:241-246 '65.

The role of different haemodynamic parameters in cardiac performance. *Ibid.*: 247-252

1. Institute of Physiology of the Czechoslovak Academy of Sciences, Prague, and Institute of Cardiovascular Research, Prague.

BASS, A.; HUDLICKA, G.

Interrelations between metabolism and blood flow in normal and denervated dog gastrocnemius muscle at rest and during stimulation. *Physiol. Bohemoslov.* 13 no. 1: 48-61 '64.

1. Institute of Physiology, Czechoslovak Academy of Sciences, Prague.

\*



**FANTIS, A.; HUDLICKA, O.**

**Effect of sympathetic nervous fibers on cerebral circulation.  
Chekh. fiziol. 1 no.4:312-322 1952.**

**1. "Sentral'nyy institut biologii, fiziologicheskoye otdeleniye,  
Praga.**

**(BRAIN, blood supply,  
sympathetic regulation)  
(SYMPATHETIC NERVOUS SYSTEM, physiology,  
regulation of cerebral circ.)**

HUDSON, O.

Nervous control of the uptake of radioactive phosphorus and sodium into skeletal muscle

Uptake of radioactive phosphorus from the blood into the soleus muscle was greater than into the extensor longus muscle. Uptake into the quadriceps femoris was greater than into the knee flexors. Uptake into resting muscles was greater than into active muscles. The degree of uptake was influenced by the nervous system, and by the rate of blood flow. After section of the nerve over the soleus muscle, uptake into the soleus gradually decreased while uptake into the extensor longus gradually increased. 3 days after section the difference was zero; 48 hrs. after section the difference was lost and the total uptake decreased.

Felix Sunders

Institute of Physiology, Czech AS, Prague

HUDLICKA, O.

Neural regulation of penetration of radioactive phosphorus and sodium into the skeletal muscle. Cesk. fysiол. 4 no.4: 433-438 22 Oct 55.

1. Fysiologicky ustav CSAV.

(NERVOUS SYSTEM, physiology,

regulation of musc. radiophosphorus & radiosodium metab.)

(SODIUM, radioactive,

musc. penetration in rats, neural regulation)

(PHOSPHORUS, radioactive,

musc. penetration in rats, neural regulation)

(MUSCLES, metabolism,

radiophosphorus & radiosodium, neural regulation in rats)

HUDLICKÁ, O.,

EXCERPTA MEDICA Sec.2 Vol.9/12 Physiology, etc. Dec 56

5571. HUDLICKÁ O., VODIČKÁ Z. and BASS A. Fysiol. Úst. ČSAV, Praha.  
 •Průnik radioaktivních izotopů  $\text{Na}^{24}$  a  $\text{P}^{32}$  do kosterního svalu při nocicep-  
 čním dráždění. Incorporation of  $\text{Na}^{24}$  and  $\text{P}^{32}$  into skeletal  
 muscle during nociceptive stimulation ČSL FYSIOL. 1956,  
 5/1 (50-55) Tables 6

Nociceptive stimulation was achieved in 3 to 4-month-old rats by crushing the meta-  
 tarsophalangeal joints of one hind leg or by fracturing the tibia just above the  
 ankle. As a result of such 'stimulation' incorporation of  $\text{Na}^{24}$  and  $\text{P}^{32}$  into the so-  
 leus and quadriceps (antigravitational muscles) was significantly decreased. Incor-  
 poration into the extensor dig. longus and into the flexors of the thigh was not af-  
 fected. This decreased incorporation was not observed if the sciatic or tibial  
 nerve was severed. Sympathectomy did not affect this decrease in incorporation.

Hahn. - Prague

CKA, O

V 6414. Uptake of radioactive isotopes  $^{45}\text{Ca}$  and  $^{32}\text{P}$  into skeletal muscle on nociceptive stimulation. G. Lindacki, Z. Vodicki, and A. Rana. *Physiol. Bohem.* 1956 3: 61. See also 1451 of *Physiol.*, Czech. Acad. of Sci., Prague, Czechoslovakia. After crushing the metatarsophalangeal joints of one of the hind limbs in rats the uptake of  $^{45}\text{Ca}$  and  $^{32}\text{P}$  by the skeletal muscle was markedly increased  $\frac{1}{2}$  and  $\frac{1}{4}$  hr later. This did not occur if the motor nerve to the muscles was sectioned. The decrease in uptake by sympathectomy. The decrease was not caused by a decrease in the blood supply to the muscles.

Val  
Ba  
Mull

HUDLICKA, O.; GUTMANN, E.

Disorders of energy metabolism in normal and denervated muscles in ischemia. Cesk. fysiол. 7 no.1:26-27 1958.

1. Fysiologicky ustav CSAV, Praha Predneseno na pravidelne schuzi fysiologicke spolecnosti v Praze dne 30. X. 1957.

(MUSCLES, metabolism,

carbohydrates, in normal & denervated musc. in ischemia (Cs))

(CARBOHYDRATES, metabolism,

musc., in normal & denervated musc. in ischemia (Cs))

EXCERPTA MEDICA Sec 2 Vol 12/4 Physiology Apr 59

1267. CHANGES IN BLOOD FLOW AND OXYGEN CONSUMPTION OF THE  
HIND LIMB IN DOGS AFTER SECTION OF THE SCIATIC NERVE -  
Hudlická O. and Vrbová G. Inst. of Physiol., Czech Acad. of Scis,  
Prague - PHYSIOL. BOHEM, 1958, 7/1 (38-44) Graphs 2 Tables 3

In dogs under morphine-cyclobarbital anaesthesia the blood flow through the hind limb was measured with a flow-meter in the femoral vein. Muscle contractions were evoked by direct electrical stimulation. Blood flow in the denervated limb was higher than that in the normal leg but both increased on stimulation of the muscle. The A-V oxygen difference ( $O_2$  consumption) increased on stimulation in the intact limb. No increase was observed in the denervated leg.

Hahn - Prague

~~HUDLICKA, O.~~

Organization of scientific work at the National Institute of Medical  
Research in London. Cesk. fysiол. 7 no.2:163-164 Mar 58.

1. Fysiologicky ustav CSAV, Praha.

(RESEARCH,

National Institute of Med. Research in London, organiz. (Cs))



HUDLICKA, O.; BASS, A.; FRONEK, A.

Utilization of a substrate of mammalian skeletal muscle and myocardium in situ. Cesk. fysiол. 13 no.4:374-378 J1 '64.

1. Fysiologicky ustav Ceskoslovenske akademie ved, a Ustav pro choroby obehu krevniho, Praha.

HUDLICKA, G.

Conference of physiologists in Plzen. Vestnik CSAV 73 no.3:499-  
500 '64.

BASS, A.; GUTMANN, E.; HUDLICKA, O.; VRBOVA, G.

Effect of repeated irritation of the muscle on the course of glycogen resynthesis. Cesk. fysiол. 7 no.5:428-429 Sept 58.

1. Fysiologicky ustav CSAV, Praha.

(GLYCOGEN, metab.

musc. eff. of repeated irritation on resynthesis (Cs))

(MUSCLES, metab.

glycogen, eff. of repeated irritation on resynthesis (Cs))

HUDLICKA, O.

Changes of blood flow in the arteriovenous anastomoses and capillary bed of the muscle following sciatic section. Cesk. fysiол. 7 no.5:475 Sept 58.

1. Fysiologicky ustav CSAV, Praha.

(NERVES, SCIATIC, physiол.

eff. of section on blood circ. in arteriovenous anastomo & capillaries of denervated musc. (Cz))

(LEG, blood supply,

eff. of sciatic nerve section on circ. in arteriovenous anastomoses & capillaries of denervated musc. (Cz))

EXCERPTA MEDICA Sec 2 Vol 13/5 Physiology May 60

2401. DISTURBANCES OF ENERGY METABOLISM IN NORMAL AND DENERVATED MUSCLE WITH OCCLUDED CIRCULATION - Die Störungen des Energieumsatzes im normalen und im denervierten Muskel bei gedrosselter Durchblutung - Hudlická O. and Gutmann E. Physiol. Inst., Tschechosl. Akad. der Wissensch., Prag - NAUNYN-SCHMIEDEBERG'S ARCH. EXP. PATH. PHARMAK. 1958, 234/6 (501-515) Graphs 4 Tables 5

Ligation of the abdominal aorta and caudal vena cava caused after 1 hr. a diminution of glycogen and creatine-phosphoric acid in the anterior tibial muscle of the rat. In normal muscle there was no resynthesis of glycogen after release

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of the occlusion. In denervated muscle there was a rise of glycogen content in this case to far above the original value. The creatine-phosphoric acid values in normal and denervated muscle returned to normal. The lactic acid values in denervated muscle rose after ligation more than in normal muscle. After release of the occlusion normal values were reached after 4 hr.

HUDLICKA, O.; BASS, A.

Utilization of various substances in normal and denervated muscles.  
Cesk. fysiол. 8 no.3:202 Apr 59.

1. Fysiologicky ustav CSAV, Praha. Predneseno na III. fysiologickych dnech v Brne dne 14. 1. 1959.

(MUSCLES, metabolism,  
in normal & denervated musc. (Cz))

EXCERPTA MEDICA Sec 2 Vol 12/10 Physiology Oct 59

4553. CHANGES IN THE METABOLISM OF POTASSIUM IN NORMAL AND DENERVATED MUSCLE DURING REDUCED OXYGEN SUPPLY - Drahotá Z. and Hudlická O. Inst. of Physiol., Czechoslovak Acad. of Scis, Prague - PHYSIOL. BOHEM. 1958, 7/6 (489-496) Graphs 1 Tables 3

When the oxygen supply to the muscle was insufficient (partial exsanguination of the animal), no changes in the total content of K were noted in the normal soleus and ant. tibial muscles of rats. On reduction of blood supply by ligation of the abdominal aorta and caudal vena cava the total content of K in the muscle decreased temporarily. Changes in total K were the same in normal and denervated soleus muscle, while the K content of the denervated ant. tibial muscle decreases with lack of oxygen. During lack of oxygen a significant decrease in the uptake of K took place in both the normal and denervated muscles. In the normal muscle the uptake returned to its initial value 4 hr. after reduction of the oxygen supply. In the denervated muscle restitution was considerably slowed. It is concluded that a disturbance of the membrane permeability to K occurs in the denervated muscle with reduced oxygen supply.

Hahn - Prague



BASS, A.A.; HUDLICKA, O.

Correlation between blood circulation and the requirement of various substances in the muscle. Cesk.fysiol. 9 no.3:217-218 My '60.

1. Fysiologicky ustav CSAV, Praha  
(MUSCLES metab.)  
(BLOOD CIRCULATION)

HUDLICKA, O.; BASS, A.

Changes in the requirement of various substances by the muscles during direct excitation. Cesk.fysiol. 9 no.3:236-237 My '60.

1. Fysiologicky ustav CSAV, Praha.  
(MUSCLES physiol)

HUDLICKA, O.

Role of vasomotor mechanisms in the rehabilitation after nerve injuries. Cas.lek.cesk 99 no.49:1527-1532 2 D '60.

1. Fysiologicky ustav CSAV, Praha.

(NERVOUS SYSTEM wds & inj) (VASOMOTOR SYSTEM physiol)

HUDLICKA, O.; BASS, A.; ZBUZEK, V.; BARTOSOVA, D.

The utilization of metabolites in the muscle during rhythmic contractions and in the restitution phase. *Physiol. Bohemoslov.* 11 no.5:404-412 '62.

1. Institute of Physiology, Czechoslovak Academy of Sciences, Research Institute of Physical Culture, ITVS faculty of the Charles University, Prague.

(ENERGY METABOLISM)

(MUSCLES)

BASS, A.; HUDLICKA, O.; ZBUZEK, V.; BARTOSOVA, D.

The utilization of metabolites in the denervated muscle during stimulation and the restitution phase. *Physiol. Bohemoslov.* 11 no.5:413-422 '62.

1. Institute of Physiology, Czechoslovak Academy of Sciences, Research Institute of Physical Culture, ITVS, faculty of the Charles University, Prague.

(ENERGY METABOLISM)

(MUSCLES)

HUDLICKA, O.

Changes in blood flow and substrate utilization in skeletal muscle after tenotomy. *Physiol. Bohemoslov.* 11 no.6:497-504 '62.

1. Institute of Physiology, Czechoslovak Academy of Sciences, Prague.  
(MUSCLES) (ENERGY METABOLISM) (TENDONS)

CZECHOSLOVAKIA

O. HUDLICKA (Affiliation not stated)

"Comparation of Physiological Research in Sweden."

Prague, Ceskoslovenska Fysiologie, Vol 11, No 6, Nov 1962: pp 556-559.

Abstract: A very detailed description of many aspects of Swedish medical research in general, from experiences and data gathered during authors prolonged stay at the Karolinska Institutet; stressing especially aspects which differ most from the corresponding Czechoslovak conditions and practices, comparing and discussing those which could usefully be adopted.

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CZECHOSLOVAKIA

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O. HUDLICKA, J. BUREK, C. BURESOVA, V. GROSSMANN, E. NOLECKOVA, J. HOLUBAN and Z. HRUZA [Affiliations not stated]

"Progress in Physiological Science. The 22nd International Physiological Congress in Leyden."

Prague, Ceskoslovenska Fysiologie, Vol 12, No 1, Jan 1963; pp 68-75.

Abstract: This is actually a series of 7 articles authored by the above 7 authors as follows: general aspects; conditioned reflexes, spreading depression, electrical activity of the cerebral cortex; sleep and awakening, biochemistry and metabolism of brain, reticular formation; general physiology and pharmacology; cell physiology; the neuron, the synapse, glanglionic transmission, mediators, GABA; and adaptation, stress and shock. Very condensed reports of this meeting in September, 1962 in Holland, giving essentially little more than the titles and authors and nationalities or cities of origin. Some papers are discussed in a few sentences.

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CZECHOSLOVAKIA/U.S.A.

HUDLICKA, O., RENKIN, E.M; Physiological Institute, Czechoslovak Academy of Sciences (Fysiologicky Ustav CSAV) Prague; Department of Physiology and Pharmacology, Duke University Medical Center,

HUDLICKY, M.

"Advances in fluorine chemistry" by M. Stacey, J.C. Tatlow,  
A.G. Sharpe. Pt.3. Reviewed by M. Hudlicky. Chem listy  
57 no.11:1203 N '63.



HUDLICKY, M.

"Methods of organic chemistry" by Houben, Weyl. Pt.V/3. Reviewed  
by M.Hudlicky. Chem listy 57 no.8:860-862 Ag '63.

HUDLICKY, M.

"Organic peroxides" by A.G. Davies. Reviewed by M. Hudlicky.  
Coll Cz Chem 28 no.4:1087-1088 Ap '63.

HUDLICKY, M.

"Research in the Hoechst factory; jubilee year 1963."

Reviewed by M. Hudlicky. Chem listy 57 no.11:1201 N '63.

HUDLICKY, H.; LEJHANCOVA, I.; MALY, V.; KONIG, J.

Organic compounds of fluorine. Pts. 5-6. Coll Cz Chem 28 no. 10:  
2744-2748, 2824-2826 O '63.

1. Research Institute for Pharmacy and Biochemistry, Prague.

HUDLICKY, M.; LEJHANCOVA, I.

Organic compounds of flourine. Pt.4. Coll Cz Chem 28 no.9:  
2455-2461 S '63.

1. Research Institute for Pharmacy and Biochemistry,, Prague.

HUDLICKY, Milos

Advances in the chemistry of organic compounds of fluorine. Chem  
listy 58 no.12:1373-1395 D '64.

1. Research Institute of Pharmacy and Biochemistry, Prague.

HUDLICKY, M.

"Methods of organic chemistry " by Houben, Weyl. Pt.V/3. Reviewed by M.Hudlicky. Coll Cz Chem 29 no.1:322-323 Ja'64.

(2-CHLOROALLYL)MALONIC AND (1-METHYL-3-CHLOROALLYL)-MALONIC ACIDS AND THEIR TRANSFORMATIONS BY CONCENTRATED SULFURIC ACID. M. Hudlicky. Chem. Listy 40, 126-7 (1946).  $CH_2=CHCH_2CO_2Et$  (I) and  $ClCH=CHCH_2CO_2Et$  (II) were prepd. from the Na deriv. of  $CH_2(CO_2Et)_2$  with  $Cl_2$  and  $ClCH=CHCH_3$  (III), resp. Both esters were hydrolyzed with KOH to the free acids (IV) and (V), which were treated with concd.  $H_2SO_4$ . Acetonilmalonic and levulinic acids were obtained from IV, but no identifiable compd. was isolated from V under similar conditions. I, b. 134-7°, was prepd. from 74 g.  $Cl_2$  and 80 g.  $CH_2(CO_2Et)_2$  in 27.5% yield. III (85 g.) added to the Na deriv. of  $CH_2(CO_2Et)_2$  (from 108.8 g.  $CH_2(CO_2Et)_2$  and 15.6 g. Na) yielded 70 g. (41%) II, b. 147-52°.  $MeCH_2CHCHO$  dropped into a 10% excess of  $PCl_5$  suspended in  $C_6H_6$ . At 20° yielded 85 g. (48%) III, b. 116-20°. I (23g.) hydrolyzed with 10% excess 80% KOH after 2 crystals. from  $C_6H_6$  8g. (45%) IV, m. 112-13°. V, m. 92°, was obtained from II by alk. hydrolysis. IV treated with concd.  $H_2SO_4$  split off HCl almost quantitatively in 50 hrs. The product, acetonilmalonic acid, was not isolated, but decarboxylated to levulinic acid (semicarbazone, m. 175°). V gave off HCl very sluggishly (80% after 250 hrs.). 5-(2-Methyl-3-chloroallyl)barbituric acid, m. 195° (from EtOH), was prepd. from II and urea by condensation with  $EtOEt$ .

M. Hudlicky



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Syntheses of oxobutylamines and acetylpipecolines. AND PROPERTIES INDEX

O. Wichterle and M. Hrdlicky. *Collection Czech. Chem. Commun.* 12, 101-28 (1947). Liquid  $\text{NH}_3$  (3000 cc.) is mixed with 850 cc.  $\text{MeCCl}_2\text{CHCl}_2\text{Cl}$  (I) at  $-33^\circ$  in an autoclave. The temp. is raised rapidly to  $110^\circ$  (max. pressure, 80 atm.) and lowered rapidly to room temp. Excess  $\text{NH}_3$  is removed and the residue treated with alkali and extd. with  $\text{Et}_2\text{O}$ . Vacuum distn. yields 185 g. 3-chloro-2-butenylamine (II),  $b_p$   $88-90^\circ$ ,  $b_p$   $47-50^\circ$ ,  $n_D^{20}$  1.472,  $d_4^{20}$  1.0453 ( $\text{HCl}$  salt m.  $220^\circ$ ); 163 g. bis(3-chloro-2-butenyl)amine (III);  $b_p$   $105-8^\circ$ ,  $b_p$   $130^\circ$ ,  $n_D^{20}$  1.49909,  $n_D^{25}$  1.49873,  $n_D^{30}$  1.50778,  $d_4^{20}$  1.0991 ( $\text{HCl}$  salt m.  $200.5^\circ$ ); and 46 g. *tris*(3-chloro-2-butenyl)amine,  $b_p$   $100-70^\circ$ . II added with  $\text{CO}_2$  in  $\text{Et}_2\text{O}$  probably yields 3-chloro-2-butenylcarbamate (IV), m.  $108^\circ$ , decomp. on standing. IV (65 g.) with 65 g. 97%  $\text{H}_2\text{SO}_4$  at  $60^\circ$  6.5 hrs. loses  $\text{CO}_2$  and  $\text{HCl}$ ; the mixt., thrown into ice, the sulfate removed with  $\text{BaCl}_2$ , decolorized with  $\text{C}$ , and concd., deposits 8 g. crystals, m.  $110-11^\circ$  (from 163). which contain S but no Cl; the product forms a semi-carbamate,  $\text{C}_8\text{H}_{10}\text{N}_2\text{SO}_2$  (I), m.  $215^\circ$  (decomp.). II.HCl (40 g.) with  $\text{KCN}$  in a little  $\text{H}_2\text{O}$  0.5 hr. at  $100^\circ$  yields 31 g. (78%) 3-chloro-2-butenylurea, m.  $113^\circ$ , which with concd.  $\text{H}_2\text{SO}_4$  at  $0^\circ$  loses  $\text{HCl}$ . The reaction of 470 g. piperidine, 100 g.  $\text{NaOH}$ , 300 cc.  $\text{H}_2\text{O}$ , and 250 g. I 3 hr. at  $20^\circ$  and 0.5 hr. at  $50^\circ$ , after extn. with  $\text{CHCl}_3$ , yields 220 g. (80%) 1-(3-chloro-2-butenyl)piperidine (V),  $b_p$   $90-1^\circ$ ,  $b_p$   $95.5-6^\circ$ ,  $b_p$   $98-9^\circ$ ,  $n_D^{20}$  1.48163,  $n_D^{25}$  1.48005,  $n_D^{30}$  1.49949,  $n_D^{35}$  1.49919,  $d_4^{20}$  0.9909 ( $\text{HCl}$  salt m.  $192^\circ$ ). V.HCl (100 g.) and 100 cc. concd.  $\text{H}_2\text{SO}_4$ , after the initial reaction, is heated at  $60^\circ$  22.5 hrs.; the mixt. is treated with ice, neutralized with  $\text{NaOH}$ , the sulfate removed with  $\text{BaCl}_2$ , and filtered. Evapn. to dryness and treatment with alkali yields 40 g. (64.2%) crude material which, purified through its picrate, yields 4-(1-piperidyl)-2-butanone,  $b_p$   $108-10^\circ$ ,  $n_D^{20}$  1.46113,  $n_D^{25}$  1.45378,  $n_D^{30}$  1.46113,  $d_4^{20}$  0.9909.

CH<sub>2</sub>, which undergoes reduction at the carbonyl group, followed by ring closure. The HBr salt from 4.9 g. V heated with 50 cc. 72% HBr 3 hrs. at 100° in a sealed tube gave small hygroscopic needles, m. 128° (from alc.), of MeNH(CH<sub>2</sub>)<sub>4</sub>CHBr(CH<sub>2</sub>)<sub>4</sub>CHBrMe.HBr (VI), and a noncrystallizable sirup (VII). VI lost Br after prolonged storage over KOH in a desiccator, probably because some intramol. alkylation occurred to give MeN-(CH<sub>2</sub>)<sub>4</sub>CH-

(CH<sub>2</sub>)<sub>4</sub>CHBrMe.HBr (VIII). VI (5 g.) in 300 cc. H<sub>2</sub>O was treated with excess Ag<sub>2</sub>O, filtered, partially distd., an equiv. amt. of HBr added to the residue, and the resulting N-methylallopinanum bromide (IX) converted to the picrate (X), m. 245°. Similarly VII gave a quaternary salt whose picrate (XI), m. 235°, showed no depression when melted with X. The formation of IX involves a double intramol. alkylation, with VIII as intermediate. X (5.2 g.) was treated successively with dil. HCl (picric acid removed by PhNO<sub>2</sub>), AgOAc (AgCl filtered off), and H<sub>2</sub>S; after filtration and evapn. the quaternary base was distd., decompos. to I occurring at about 200°. The picrate of I was sep'd. into 2 fractions: the least sol. in alc. as lustrous light green prisms (XII), m. 187°, the other as more intensely colored scales (XIII), m. 196°; mixed m.p. 178°. These are undoubtedly the 2 racemates possible for the picrate of I. From XII, HCl liberated a l. b. 198°, whose methiodide readily gave a picrate (XIV), m. 213°. Similarly the l. from XIII gave a methiodide whose picrate (XV) m. 261°. The differences in m.p. between X and XI and between XIV and XV are due to the possibility of 4 different racemates of X.

Richard G. Kadesch

100 AND 200, 800000		PROPERTY INDEX	
<p>Syntheses of oxobutylamines and acetylpyridines.</p> <p>O. Wichterle and M. Huslický (Lab. recherches chimiques malon Buta, Zlin). <i>Collection Czech. Chem. Commun.</i> 12, 120-37 (1947) (in French); cf. <i>C.A.</i> 41, 4148i. — <i>p</i>-MeC<sub>6</sub>H<sub>4</sub>SO<sub>2</sub>NH<sub>2</sub> (57 g.), heated 1 hr. at 170° with 28 g. 20% NaOH and an excess of MeCCl:CHCl<sub>2</sub> (I) with removal of H<sub>2</sub>O by distn., then 2 hrs. with 30 g. more NaOH, yielded <i>N,N</i>-bis(3-chloro-2-butenyl)-<i>p</i>-toluenesulfonamide (III), b.p. 244°, m. 72-3° (from petr. ether). II (15 g.) with 4.5 g. (NH<sub>4</sub>OH), H<sub>2</sub>SO<sub>4</sub> for 2 days, followed by treatment with H<sub>2</sub>O yielded the 4-methyl-3-acetyl-5<sup>h</sup>-pyridide of <i>p</i>-toluenesulfonic acid [1-(<i>p</i>-tolylsulfonyl)-3-acetyl-4-methyl-1,2,5,6-tetrahydropyridine] (III), m. 101-2° (from 70°; alc.) (semicarbazone m. 190-1° (decompn.)). An attempt to prep. III from II with concd. H<sub>2</sub>SO<sub>4</sub> gave a tar. Attempted prepn. of <i>N,N</i>-bis(3-chloro-2-butenyl)-benzamide (IV) from I and Na benzamide gave only the mono deriv. (V). Attempted prepn. of the Na deriv. of V from V and NaNH<sub>2</sub>, NaOH, and Na in NH<sub>3</sub> failed. IV, m. 80-1°, was prepd. in 85.8% yield from (MeCCl:CH:CH<sub>2</sub>)NH<sub>2</sub>·HCl and H<sub>2</sub>Cl in NaOH soln. IV (40 g.) with 50 cc. H<sub>2</sub>SO<sub>4</sub> yielded 4 g. of 6-methyl-3-acetyl-5<sup>h</sup>-pyridide of benzoic acid [1-benzoyl-3-acetyl-4-methyl-1,2,5,6-tetrahydropyridine] (VI), m. 83-4° (from Et<sub>2</sub>O) (semicarbazone m. 210-12° (decompn.)). VI (1.8 g.), refluxed with 15 cc. 20% HCl, yielded a syrup which, made alk., gave 6-methyl-3-acetyl-1,2,5,6-tetrahydropyridine (VII) (picrate m. 124.5°; reaction with semicarbazide gave a product m. 185°, contg. 2 mols. semicarbazide, 2 mols. H<sub>2</sub>O, and 1 mol. VII·HCl). During the formation of VI, AcOH was produced; the mixt., after removal of sulfate, evapor. to dryness, and hydrolysis with 20% HCl, yielded a compl. C<sub>12</sub>H<sub>15</sub>NSO<sub>4</sub>, m. 103-3° (decompn.). I (1250 g.) with 2 l. NH<sub>4</sub>OH yielded 50% (80.3%) <i>bis</i>(3-chloro-2-butenyl)-</p>		<p>amine (VIII), b.p. 130°, b<sub>2</sub> 170°, b<sub>3</sub> 173-4°, n<sub>D</sub><sup>20</sup> 1.50788, n<sub>D</sub><sup>25</sup> 1.51129, n<sub>D</sub><sup>30</sup> 1.52402, n<sub>D</sub><sup>35</sup> 1.52883, d<sub>4</sub><sup>20</sup> 1.1294 (HCl salt, m. 183-4°). <i>Methylbis</i>(3-chloro-2-butenyl)ammonium chloride (as a by-product in the prepn. of (MeCCl:CHCl<sub>2</sub>)<sub>2</sub>NMe, m. 168° (from Me<sub>2</sub>C(1))), the iodide was obtained from VIII and MeI. VIII and I, let stand 2 months, yielded <i>tetrakis</i>(3-chloro-2-butenyl)ammonium chloride, m. 110-11° (from Me<sub>2</sub>C(1)).</p> <p>R. W. S.</p>	

PROCESSES AND PROPERTIES UNIT

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Reactions of 1-acetoxy-1,3-butadiene, O. Wichterle  
and M. Janda, *J. Chem. Soc.*, (C), 1947, 125.  
**12, 304-71(1947)**(in French).—From 300 g. MeCH=CHCHO, 440 g. Ac<sub>2</sub>O, and 200 g. AcONa heated 4 hrs. at 121–30° was obtained 180 g. 1-acetoxy-1,3-butadiene (I), b.p. 38°, l.e. 42–3°, n<sub>D</sub><sup>20</sup> 1.4666, d<sub>4</sub><sup>20</sup> 1.40870. I (57 g.) and 42.5 g. acrolein yielded 64 g. 2-acetoxytetrahydrobenzaldehyde (II), b.p. 110–15°, d<sub>4</sub><sup>20</sup> 1.1023, n<sub>D</sub><sup>20</sup> 1.47385; semicarbazone, m. 161–2°. II (2 g.) in the presence of O was converted by ultraviolet illumination to acetyltetrahydrobenzylidic acid (III), m. 97–8°. That these are the correct structures (and not 3-acetoxytetrahydrobenzaldehyde or the corresponding acid) was proved in that III formed no γ-lactone. I (28 g.) and 19 g. MeCH=CHCHO, heated at 130°, yielded 9 g. 6-methyl-2(5?)-acetoxytetrahydrobenzaldehyde (IV), b.p. 123°, d<sub>4</sub><sup>20</sup> 1.0711, n<sub>D</sub><sup>20</sup> 1.47208. Two forms of the semicarbazone of IV were obtained, m. 184–5° and m. 115–17°. Hence, IV apparently was a mixt. of both possible reaction products. I, II, and IV were further characterized by mol. refraction measurements. M. Q. Webb

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

12000 STEELING

12000 METAL ONLY DET

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